

A new species of  
*Stipsostoma* Koch (Col., Tenebrionidae), with a key  
to the species and distribution map of the tribe  
Eurychorini in Southern Africa.

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The genus *Stipsostoma* is one of several which comprise the tribe Eurychorini.

The genus was previously represented by only two species: *S. sculpta* (Gebien, 1920), described from the coastal peneplane of South West Africa, north of the Orange River mouth, and *S. holgatensis* Koch, 1952 from the Richtersveld south of the Orange River mouth.

A third, new species, is described below.

Genus **STIPSOSTOMA** Koch, 1952.

Type-species: ***Stipsostoma sculpta*** (Gebien, 1920).

**Key to species.**

- 1 (4) Compound eyes divided by a genal canthus into upper and lower halves (Fig. 7). Disc of pronotum with distinct lateral callose ridges or humps (Fig. 9). Mid-tarsus sinuately S-shaped. . . . .
- 2 (3) Disc of pronotum strongly convex, with distinct supplementary carinula between median carinae (Fig. 9). Body elongate, moderately oval, with apical declivity sloping obliquely down. Discal costa of elytra less approximated to the humeral costa; the greatest width between the discal costa and median suture about two times as broad as interspace between discal and humeral costae. Epipleural carina, viewed from above, visible along its entire length . . . . . ***sculpta*** Geb.
- 3 (2) Pronotal disc less convex, without distinct median carinula (Fig. 6). Body more rounded, apical declivity vertical in position. Discal costa of elytra more closely approximated to humeral costa; the greatest width between the discal costa and median suture about four to five times as broad as interspace between discal and humeral costae. Epipleural carina, viewed from above, concealed in posterior half by overlapping of humeral costa . . . . . ***holgatensis*** Koch.

- 4 (1) Compound eyes not divided (Fig. 4), but connected by several rows of eye-facets; pronotal disc without lateral blunt callose ridges (Fig. 3).  
Mid-tarsus straight . . . . . **fitzgeraldi** sp.n.

***Stipsostoma fitzgeraldi* sp.n.** Figs. 1—4.

Locus typicus: Cape Province, Griquatown, Leeuskul.

DESCRIPTION.

Male holotype (Transvaal Museum).

Length of body 6.9—8.0 mm., width of body 3.6—4.1 mm.

Of small size, body oval, deplanate, a uniform dull black colour, covered with fine setiferous granules.

Antennae filiform, slightly shorter than width of head, composed of 11 segments. The terminal segment small, rudimentary and not easily seen. First and third segments of about equal length and twice as long as any of the remaining segments.

Head enclosed in prothorax up to genal angles, transverse, and wider than its length. Dorsally with two oval, comparatively deep, pre-ocular depressions which are separated by a sharp median carina which becomes obliterated in the occipital region (Fig. 2). Two sinuous, callose, supra-occipital carinae extend forwards to converge on the median one. Integument above, well stippled with coarse, hairy granulations except in hollows of pre-ocular depressions. Epistomal surface sloping obliquely downwards, almost twice as long as first antennal segment and forming a blunt angle with the anterior lateral edge of epistome. Genal canthus much reduced and only slightly constricting the eyes anteriorly (Fig. 4). Eyes not divided, elongately reniform, composed dorsally of about six, and ventrally of four transverse rows of facets. Posterior margin of eyes setose. Mandibles sinuate, bifid apically. Mentum transverse, excised apically. Infra-orbital carina sparsely rugulose, setose behind and covering posterior margin of eye. Ventrally, integument densely covered with hairy granules except for infra-orbital sulci.

Pronotum almost as wide as elytra, broadest posteriorly; in middle, deplanate, almost lamellate on the sides. Disc crossed by two longitudinal, sinuous, elevated carinae which are constricted in the middle but diverge

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EXPLANATIONS OF FIGURES.

*Stipsostoma fitzgeraldi* sp.n. ♂ type.

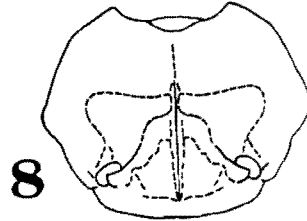
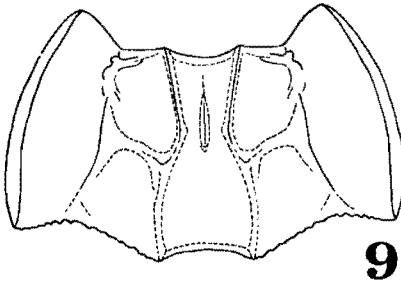
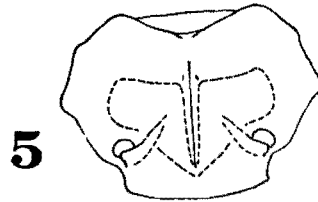
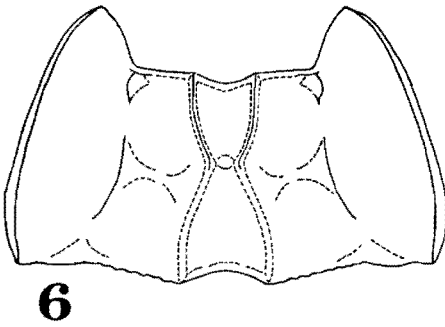
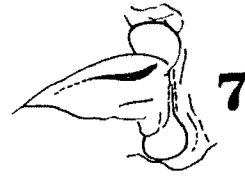
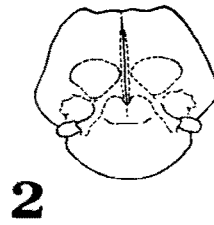
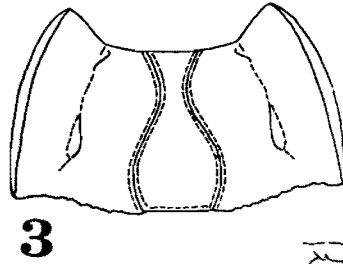
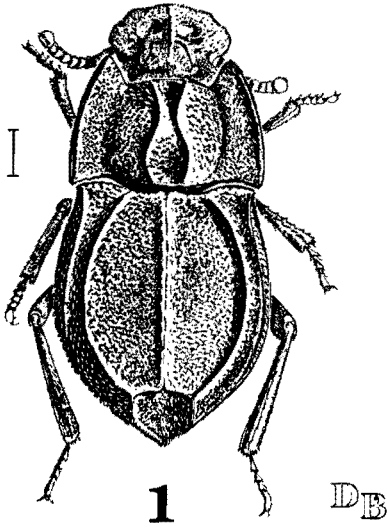
1. Entire insect from above. 2. Head from above. 3. Thorax from above.  
4. Compound eye and genal canthus in profile.

*S. holgatensis* Koch.

5. Head from above. 6. Thorax from above. 7. Compound eye and genal canthus in profile.

*S. sculpta* (Gebien).

8. Head from above. 9. Thorax from above.



anteriorly (Fig. 3). Posteriorly the discal carinae converge to enclose an elliptical, weakly concave area. Laterally compressed area of the pronotum wide and rounded, separated from the central convexity by a weakly granulated depression. Anterior margin of pronotum deeply excised, lateral lobes long. Sides of pronotum with duplicated margination, formed of two sharp finely denticulate carinae and separated by a shallow sulcus. Both margins visible for their entire length from above. Disc of pronotum broadly excurved in middle, sinuate on either side and cut off perpendicularly between the discal carinae. Hind margin edged by dentiform tubercles. Anterior angles almost rectangular, apices pointing posteriorly. Integument coarsely granulated over whole upper surface, the elevations coalescing to form sharp, irregular, rugose ridges which are evenly stippled by pale brown setae. Prosternum convex with broad straight episternal sulcus opening on to hind margin, and deepest in middle. Underside rugose, weakly granulate, except for smoothness of antennal grooves.

Elytra more or less flat, slightly concave in disc, only just broader than the pronotum and with almost parallel sides. Body rounded posteriorly and with sloping shield-shaped apical declivity. Base of elytra broadly emarginate and dentate. Scutellum with thickened ridges across base. Longitudinal suture elevated, free of granulations and pubescence. Disc of elytra with lateral costa curved inwards at both ends. A short transverse, posterior carina links the discal costa to the median suture and forms the base of the apical declivity. Sides of elytra with wide duplicate margination which is formed by the humeral and lateral costae. When viewed from above, both the costae are visible in the basal two thirds only. The humeral and discal costa run almost parallel at first but diverge apically, where they are joined by a short vertical carina forming the sides of the apical declivity. The lateral costa, which is the epipleural limit of the elytra curves completely back to the apex of the body and forms the acute point of the apical declivity. These bifurcations of the costa come, thus, to enclose a characteristic sloping and pentagonally shield-shaped area. Integument with fine setiferous granules arranged in transverse rows across the elytra. Mesosternum with minutely serrated carinae which converge between the coxal cavities. Disc of metasternum flat, but with weak lateral carina. Posterior margin of metasternal area emarginate at centre. First three abdominal segments flattened in disc, at same level as metasternum. Pleurites of abdomen, as also meso- and metasternum, sloping strongly up to the lateral margin of elytra. Ventrally, the integument is covered with fine rugose ridges and well stippled with pale setae, becoming densely matted on last abdominal sternite.

Tibiae straight, inner and outer margins flattened, denticulate along the edges. Hind tibiae longer than first two. Dilated apices of all three ringed on inner and lateral sides by short symmetrical rows of rufous coloured spines. Tibial calcares weak and are stoutest in the fore-leg. Tarsi somewhat compressed but well spined below. The claws are long.

Female — Unknown.

## DISTRIBUTION.

South Africa: Cape Province, Griquatown, Leeuskul. 14.2.1957. Holotype ♂, and 2 ♂ paratypes, (H. Dick Brown).

In addition to the type one paratype (dissected) will also be deposited in the Transvaal Museum, Pretoria and the other in the British Museum (Nat. Hist.), London.

*S. fitzgeraldi* sp.n. differs strikingly from the other two known species by the very different structure of the compound eye, reduction of the genal canthus and depressions of the dorsal surface of the head; by the distinctive pronotum and by the shape of the mid-tarsus. The new species is so different from the remaining species that it is not impossible that it represents a separate genus but is provisionally referred to the genus *Stipsostoma* until a revision is made.

This remarkable species is named after my friend Mr. D. F. Vesey-FitzGerald of Abercorn, Northern Rhodesia who together with other locust personnel accompanied me to this extremely interesting locality.

The specimens were collected during the day from amongst broken rock fragments against eroded mountain slopes. An impoverished flora, chiefly of *Acacia detinens* Burch. and *Chrysocoma tenuifolia* Berg, covered the slopes

**REMARKS ON THE DISTRIBUTION OF THE EURYCHORINI  
IN SOUTHERN AFRICA.**

The data on distribution, given below, have been largely compiled from classified and duplicate material from the eurychorinid collection of the Transvaal Museum. Further records have also been gleaned from the little literature so far published on this group, while Dr. Koch has kindly supplied me with further records from his comprehensive notes.

For this study, Southern Africa is assumed to include all the territories lying to the south of the Cunene and Zambezi rivers. From within this area the collection of Eurychorini is considered sufficiently complete to permit of some preliminary remarks on the distribution of its members. There is, however, little doubt that many areas remain imperfectly sampled and in consequence the map indicates to some degree the intensity of collecting that has taken place. Despite this the main patterns of distribution are tolerably clear.

The tribe Eurychorini comprise an assemblage of 34 genera; of these only 23 are found within the limits of Southern Africa. The map (Fig. 10), indicates, moreover, that the bulk of these are densely distributed in a narrow strip along the arid west coast of Southern Africa while a relatively smaller number are dispersed over the more eastern parts. It is also evident that the central and south-eastern parts of the region are poorly inhabited. With the exception of two very widespread genera, *Eurychora* and *Geophanus*, the faunas of east and west remain somewhat isolated. The only tendency to overlap on the part of the two faunas is seen in the northern parts of Bechuanaland and South West Africa, and in the south-eastern corner of the Cape Province.

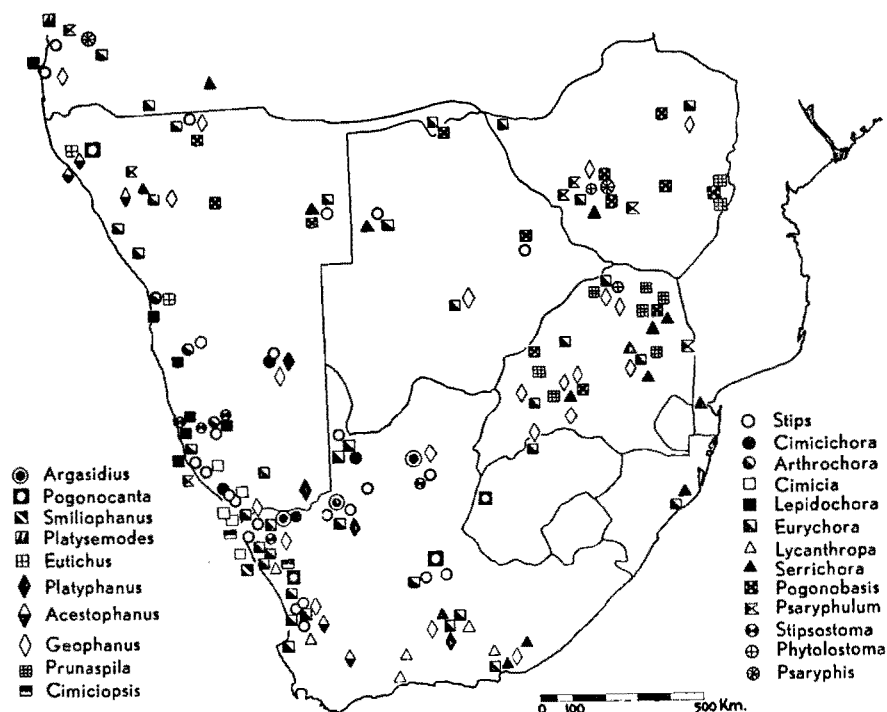


Fig. 10. The geographical distribution of the tribe EURYCHORINI in Southern Africa.

It becomes evident that in Southern Africa the distribution of the tribe can be split up into two distinct faunistic elements: an abundant west coast fauna and a more extensive, but poorer, eastern fauna.

### I. Genera with a predominantly western distribution.

These consist of a number of very localized forms which are limited in their distribution to the west coast of Southern Africa. They are associated mainly with the arid areas of Angola, South West Africa and the Cape Province. This fauna is typically rich in genera but poor in species. Indeed, many of the genera are monotypic. So far 15 genera containing 37 species have been recorded. These are: *Stips* (with 6 species), *Cimicichora* (3), *Arthrochora* (1), *Cimicia* (1), *Lepidochora* (4), *Lycanthropa* (7), *Stipsostoma* (3), *Argasidius* (1), *Pogonocanta* (1), *Smiliophanus* (2), *Platysemodes* (1), *Eutichus* (1), *Platyphanus* (1), *Acestophanus* (3) and *Cimiciopsis* (2). The majority of the species inhabit open sandy or gravelly plains, or areas of

denudation often strewn with pebbles or larger rocks. Such localities are characteristic of the coastal desertic areas of South West Africa and the sparsely vegetated karrooid areas of the Cape Province.

Namaqualand and the North West Cape have the most prolific fauna; 11 genera comprising 30 species are found here. South West Africa has an equal number of genera but with only 25 species. With the exception perhaps of north Bushmanland and the Richtersveld of the Cape Province, the hinterland of the west is exceedingly poorly inhabited. Only one genus, *Stips*, is found to occur in Bechuanaland. Several other genera are found in the northern extremity of Bechuanaland and also South West Africa but these are representatives of the eastern fauna which have extended their range westwards.

## II. Genera with a predominantly eastern distribution.

Under this heading are found a number of widely distributed genera which are restricted partly to the eastern parts of Southern Africa. Many of its members are also to be found in Central and East Africa, and even a few in North Africa. Only 6 genera occur within the Southern African region: *Serrichora* (with 12 species), *Pogonobasis* (7), *Psaryphulum* (2), *Phytolostoma* (1), *Psaryphis* (1) and *Prunaspila* (2). The large genera, *Serrichora* and *Pogonobasis*, have a less restricted distribution and are also recorded from South West Africa and the Cape Province. The fauna is richest in Southern Rhodesia and the Transvaal: 6 and 5 genera respectively. The Cape, Natal and Mozambique are each represented by a single genus, namely *Serrichora*. South West Africa and Angola contain 3 genera apiece. Members of this fauna are largely associated with areas of woodland and savannah, and appear adapted to withstand greater variations in habitat. Their greater ecological amplitude has not only resulted in a more tropical distribution but has also enabled them to successfully inhabit the more arid areas of the Kalahari and South West Africa.

Two additional genera, *Eurychora* and *Geophanus*, which are distributed throughout the Tropics are found widespread in Southern Africa, and flourish in both well-vegetated and arid habitats.

## CONCLUSION.

The above considerations show that the geographical distribution of the tribe in Southern Africa consists chiefly of an abundant and very rich western element which is largely endemic in its distribution to Southern Africa. It is not found elsewhere in Africa. Altogether, this fauna represents 65 % of the known Eurychorini genera of Southern Africa. By comparison the rest of the region is poorly inhabited. Most of the genera found in the east are widely distributed and a great many are to be found further north in the tropical parts of Africa. Their distribution in Southern Africa suggests that they are closely connected to the tropical and Ethiopian fauna which penetrates from the tropics down along the east coast of Southern Africa.

The true home of the tribe in Southern Africa, therefore, is situated in the arid coastal strip of the west with Little Namaqualand and Great Namaqualand forming the centre of distribution.

#### **Acknowledgement.**

I am indebted to Dr. C. Koch for additional information on the distribution of the tribe and also for his encouraging suggestions while writing this paper. Thanks are due to the Director and Staff of the Transvaal Museum for providing facilities to do the work, and also to my wife who typed the manuscript.

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